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ABSTRACT

The news media of the 1990s will probably not use videotext systems or three-dimensional holograms to replace the newspaper. Instead, simpler combinations of news media that mimic the characteristics of print may replace advertising in newspapers, causing them to downgrade journalism or increase subscription cost, thereby decreasing circulation and social impact. The danger to journalism is based on five propositions: (1) teletext can mimic the interactivity of two-way videotext at a fraction of the cost; (2) by the mid-1990s, teletext will offer advertisers a print-like medium at a cost far below that of newspapers; (3) retailers are learning that many kinds of advertising need not appear between news columns to be read by consumers; (4) the marriage of interests between readers and advertisers will dissolve; (5) faced with a loss of advertising revenues, newspapers will either reduce the quality of journalism or maintain service only at high subscription rates for those who can afford it. Society will be affected adversely because the kind of news that exposes the problems in society and gives voice to those aggrieved is expensive journalism, the existence of which is threatened by these impending changes. A 60-item bibliography is appended. (SRT)

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THE MEDIA ENVIRONMENT OF THE '90s: A PERIOD OF DANGER FOR NEWSPAPER JOURNALISM?

Abstract

The new media environment of the 1990s will probably not sport three-dimensional holograms dancing like wraiths in our living rooms, nor exotic home videotext systems to replace the newspaper. Rather, simpler combinations of new media that mimic the characteristics of print may steal away certain types of advertising from newspapers, prompting them to cheapen journalism or dramatically raise subscription fees thereby eroding circulation and social impact.

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Introduction

When videotext arrived in the middle of the last decade, it was interpreted as a threat to replace the newspaper on the step with one on the set. Now that videotext is finding acceptance only in the office and the tourist kiosk, publishers are breathing easier. They shouldn't.

While newspaper executives are scanning the technological horizon to convince themselves that their readers are unlikely to desert them in favor of an cornucopic home videotext system for news, shopping, banking, learning, working, and minding the house, a new environment featuring simpler media is taking shape. And a new understanding of consumers as active seekers of commercial information--rather than passive observers who require columns of news to attract their attention--is spreading, buoyed by the success of direct mail and preprinted advertising inserted in newspapers. Combinations of new media far cheaper and less sophisticated than videotext, such as print-mimicking teletext delivered not over the vertical blanking interval where it is slow and limited, but either over full channel cable or low power television, where its capacity is enormous, could provide exclusively commercial information at a fraction of the cost retailers now pay newspapers. Such media are poised to nibble away at the newspaper's most important customers--advertisers. Because newspapers are balanced on an economy of scale, producing a product for which readers pay a fourth or less of the cost, defection of relatively few advertisers--and the expense of continued high circulation--may imperil their finances.

Should that happen newspapers would be tempted to make one of two fundamental changes: Either sharply raise subscription prices and maintain quality for a restricted, more affluent circulation, or cut back on expensive journalism--in-depth and investigative reports. In the first case, the common focus of attention newspapers brought to all strata of a community is endangered. In the second, the kind of tough-minded reporting that gives life to the "the Fourth Estate's" enabling role in a democratic society is jeopardized.

Let me acknowledge at the start that newspapers have been the subject of gloom and doom predictions repeatedly over the past half century. In the 1930's radio's speed and live coverage were certain, some thought, to make printed news stale before it reached the newsboy's sack. Television was going to lure readers from old fashioned text with moving pictures. Later, facsimile--news received through a wire and printed in the living room--was going to dismantle the giant press of the metropolitan daily. Most recently, videotex (a generic term for text and graphics on a screen) was predicted to make the newspaper obsolete with its custom-tailored information available on demand. But radio and television rarely took news seriously. Facsimile languished on the inventor's easel. And videotex, while still a technology in gestation, has been coldly received by the public in trial after trial. Over the years, newspapers not only weathered the competition, they became more profitable, and in many cases upgraded their editorial product as well. The newspaper is portable, browseable, and inexpensive. Newspaper consumption is as habitual as breakfast cereal for tens of millions. The industry is mature and its pockets are deep. It appears as enduring as First Century Rome. But times change.

The Literature: From Serious Threat To No Sweat

Because of the proprietary nature of most research on new communication technologies, scholars must rely heavily on popular and trade publications. But if these reflect the thinking of an industry, then new technologies have put the newspaper business--despite its apparent solidity--on an emotional rollercoaster during the last decade. Early descriptions of teletext (one-way transmission of text and graphics to home television sets) and videotext (two-way, and therefore, on demand transmission of virtually unlimited information) had a "future is now" quality. With one eye on leaping fuel and newsprint charges and the other on plunging computer prices, late '70s and early '80s prognosticators foretold imminent replacement of newspapers--and print generally--with "home information centers" networked into every source of information imaginable. Joseph Roizen, a well-traveled new technology consultant reached the apogee of the early rhetoric when he wrote in 1979: "We are looking at a multi-billion dollar industry that, over the next five years, will supplant our current means of telecommunications" (Weaver, 1983). Both popular and trade press were abuzz with stories about the new technologies with headlines such as: "Hot off the screen: More publishers beam electronic newspapers to home video sets" (Wall Street Journal 1/2/81); "Most Consumers Find Videotex Services Useful: Half Would Pay, Survey Reveals," (Marketing News, 11/26/82); "Want to get into electronic publishing? Newspapers told to decide in a hurry or lose out to other entrepreneurs," (Editor & Publisher, 11/12/83); "The 'Electrocution' of Print" (Across the Board, 3/83).

The newspaper industry apparently took the threat to heart. A survey of 1,067 U.S. and Canadian dailies conducted by the Newspaper

Advertising Bureau showed 48 percent were actively considering, planning, participating in, or operating some kind of cable, teletext, videotext, or low power television venture (Videodisc/Videotex, Jan/Feb. 1984). Large newspapers, such as the Washington Post, Boston Globe, and San Francisco Chronicle, signed videotext agreements with corporations pioneering the new technologies (Editor & Publisher, 6/25/83).

But the fever broke before the mid-80s. Articles about new technologies replacing newspapers before the next century--or even threatening them--became scarce. Instead, the space was absorbed by reports of the failures of home teletext and videotext pilots. Time Magazine closed down Time Video Services, its national teletext venture (Editor & Publisher, 12/17/83). Texas newspaper publisher A.H. Belo pulled the plug on Bison, a videotext pilot in Dallas (Advertising Age, 7/19/82). Columbus, Ohio's Channel 2000, one of the few videotext trials publically studied, showed a dramatic drop in consumer enthusiasm for the new medium among the households who used it (Bolton, 1983). In Britain, Prestel, the world's pioneer videotext system, projected 3 million subscribers within 10 years. In 1983, four years after it was introduced, only 23,000 videotext sets were in use, and all but 5,100 were operated by businesses (Gurnsey, 1983). More recently, Times Mirror closed its Gateway videotext service in Southern California after 15 months of commercial operation (San Jose Mercury News, 2/28/86). And Knight-Ridder, undisputably at the bleeding edge of the technology, has closed its Viewtron videotext venture after reportedly losing $60 million (Tucker, 1986). Only in France, where the government is providing terminals without charge, does videotext appear to be a domestic success, reportedly raising telephone volume 20 percent where it has been installed (Dumont, 1986).

Wallace (1984) summed it up: "Whatever happened to videotex, the revolutionary technology that promised so much to so many for so little?" And the new consensus answer? Videotext has found a home in the office (Carey, 1982; Sigel, 1983; Rice, 1984) as a means of internal communication and distributed computing.

The newspaper industry took courage from videotext post mortems that said videotext was too expensive, and teletext too limited and slow, and that both were cumbersome to operate and wearing on the eyes (Weissman, 1983; Ash and Quelch, 1983; Gurnsey, 1983; Paisley, 1983; Talarzyk, 1983; Weaver, 1983; Dozier and Rice, 1984; Sigel, 1980; Muter, 1982; and Simons, 1982; among others). The readers, said industry analysts like Harvard's Benjamin Compaine (1980, 1984) and Ben Bagdikian (1983) of the University of California at Berkeley, will likely stick with newspapers into the next century.

The Case for Worry

What research literature exists makes a plausible case that publishers have little to fear from a videotext "electronic newspaper" at least until sometime in the next century. The "home information center" suffers from a relative disadvantage in price, capability and convenience. And it is likely to remain so until personal computers are more widely diffused and a two-way coaxial or fiber optic network provides the bandwidth necessary to realize the potential of videotext. But in their rejection of videotext as a replacement for newspapers, researchers have glossed over the potential of teletext. Most reports on this one-way technology restrict it to its initial application as a slow and limited source of information tucked in the vertical blanking interval (the black bar visible when a television set is out of

adjustment). The new medium's substantial capacity and interactivity when broadcast on a full channel is mentioned only in technical books. With several notable exceptions, (Paisley, 1983; Weaver, 1983), teletext has been ignored.

This paper attempts to address the gap in the literature with an argument that over the next 15 years teletext, not videotext, represents a threat to contemporary newspapers, not as a substitute newspaper, but as an extraordinarily inexpensive, user-directed, advertising medium with a comparative advantage over present means of presenting commercial information both for the consumer and the retailer.

Teletext is just one technology likely to flourish as the U.S. moves from the relative channel scarcity of VHF television and one-newspaper cities to the adundance of a full spectrum of low power television stations, proliferation of cable television systems with 30 or more channels, the spread of backyard satellite dishes, and the explosion of video cassette recorders and store-bought programming. What makes teletext important to watch is that it can be carried over every new means of transmission--and unlike all the others--it is increasingly able to display ads the way newspapers do.

The cause for worry about journalism in the middle of the next decade is based on the following five propositions:

1. Teletext transmitted over a full cable channel or a low-power television station can mimic the interactivity of two-way videotext at a fraction of the cost.
2. By the mid-1990s, teletext will offer advertisers a print-like medium at a cost per thousand viewers far below that of newspapers.

3. Retailers are learning that many kinds of advertising material need not be packaged between news columns to be read by consumers.

4. The abundant media environment of the next decade will accelerate dissolution of the marriage of interests between readers and advertisers that is the economic foundation of U.S. newspapers.

5. Faced with a loss of advertising revenues, newspapers will be tempted to reduce the quality of journalism or maintain service only for that portion of their current circulation that can afford and is willing to pay substantially higher subscription rates.

A scenario being de rigueur in articles about new communication technology, here's an example of what might be the case 10 years from now. Orwell and Toffler be damned, you'll find in it no wall-sized television, no holography, no picture phone, no satellite dish and no home information center with a personal computer mediating an interplay with a distant mainframe. What follows is a more prosaic scenario:

It's Saturday morning. The man of the house pads to his porch and picks up the newspaper with almost the same anticipation and pleasure that he has every morning for the last 20 years. But the paper doesn't hit the porch with a thud anymore, as it used to when it was thicker and the preprints would spill out. As his eyes run down the front page, he thinks how the paper just doesn't seem as newsy as a few years back when a month didn't go by without some local scandal being unearthed or without learning something startling about the area, its institutions and people. But you have to accept that, he muses, there's no other place to go for that kind of news unless you know insiders.

Saturday is shopping day since he and his wife both work. There is no time to drive from mall to mall, searching for the best combinations of price and product. His wife turns on the bedroom television and picks up the palm-sized key pad to tune in the Bargain Channel.

The Bargain Channel took up an empty slot on the local cable system three years ago and has gradually become part of her shopping habits. Run by an ad agency in the metropolitian area, it offers information at no charge on all products and services being offered at a discount that week. The yellow pages and phone directory were the first teletext applications. They were followed by a constantly updated headline service, sports scores, a classified ad section, and schedules for airlines and local trains and buses.

The phone companies and a consortium of national retailers paved the way for the Bargain Channel by subsidizing purchase of the decoder box on the TV. At first, there was only one Bargain Channel. But later as decoders were wired into TV sets, other purely advertising channels have been added, each specializing in a general product area, such as automobiles and car products, sports equipment, and hardware. For those without cable access, the bargain channels are also broadcast by a standard VHF television station at 3 a.m. each day where video cassette recorders can copy them for later viewing.

The wife wants a leather handbag and some dressy shoes, and doesn't want to drive all the way downtown for them. So she selects a nearby shopping sector from the menu and specifies that she would like to browse the shoe sales. The frames, with near-print quality color photos, show the styles, sizes, prices and store offering the sale.

Frequent updates mean she won't waste a trip to find the stock out in her size. She spots an attractive pair, notes the store's address and returns to the product menu to repeat the process for a handbag. For fun, she also scans the sale offerings at Lacy's, her favorite store, just in case there's something on sale she hasn't thought of. As she walks to her car, she marvels at how infrequently she now comes home frustrated at being unable to find just what she wanted at an agreeable price.

Proposition 1: Teletext transmitted over a full cable channel or low power television station can mimic the interactivity of two-way videotext at a fraction of the cost.

Teletext operates by broadcasting over the air or transmitting through a television cable in digital form a series of frames or screenfuls of text and graphics, rather than the usual pictures and sound of conventional television broadcasts. It is like a slide show, still frames, rather than rapidly moving ones giving the impression of motion. Unlike videotext, where the consumer sends a message via a two-way cable or phone line to a central mainframe computer and then receives the specified information, the teletext consumer chooses from whatever frames are being transmitted to all receivers. He or she may choose any sequence of those screens of information. Teletext is a one-way technology, but as the number of frames broadcast in a cycle grows, so does the consumer's choice, and thus the interactive characteristics of the medium.

Britain's CEEFAX and ORACLE teletext news services, and most American teletext trials, use a few lines of the vertical blanking interval (VBI) rather than a full channel. They typically broadcast about 100 frames in a cycle. In the U.S., each screen holds up to 20 lines of text, 32 characters per line, or about 90 words. Since the cycle lasts 20 seconds, an average wait between one frame and the next selected would be 10 seconds. VBI teletext is slow and content is extremely limited. In contrast, teletext over a full channel can send more than 5000 frames in a 20 second cycle. And decoders with memory chips can store the next frames in a sequence likely to be chosen by the reader, reducing waiting time between pages to less than a second (Singleton, 1983).

Within the range of information contained in those 5,000 pages, teletext offers faster access than videotext and greater graphics capability than videotext transmitted over phone lines--the typical arrangement. Full channel teletext has 1125 times the bandwidth, or capacity, of the standard phone line[1]. The bandwidth of full channel teletext provides capability for television-picture-quality graphics. IDR Inc., a subsidiary of Reuters, expects to market a decoder capable of handling the high speed transmission of information necessary to paint picture quality television graphics within 36 months for under $100 per unit.[2]

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1. This comparison is based on a 6 mhz channel--4.5mhz capacity with .75mhz sidebands--and a 4 khz twisted pair.)

2. High resolution frames require about 50,000 bits of information each. To reach a transmission speed of 250 frames per second, the decoder would have to run at 12.5 megabits per second--fast by today's standards but not by tommorrow's, according to Hugh Gigante of IDR, Hauppauge, NY.

The development of high definition television (Veith, 1983), and increased digital picture resolution in new sets (Lachenbruch, 1984) promise even sharper text and graphics, permitting more content per screen.

Teletext is vastly cheaper than videotext both for producers and consumers. Because it is a two-way system, videotext requires an expensive central mainframe computer ($2-5 million) at the system origination point, or headend, and usually a full-keyboard terminal or personal computer in the home. Consumers without access to a two-way cable system (and only a few newer systems offer upstream communication) must also buy a modem ($50 to $400 depending on its transmission speed) to connect with the telephone, and pay monthly phone bills on top of any frame fees charged by the videotext system. Knight-Ridder's Viewtron system in south Florida, the first commercial videotext venture in the U.S., had estimated monthly charges of $26 to $30 for the service (Wylie, 1984) after subscribers purchased a $600 home terminal-modem. To access the company's national version of Viewtron, a personal computer and modem were required.

In contrast, transmitting teletext principally requires a frame generator--costing about $18,000[3]--and rental of time on an LPTV or cable channel. With the number of underutilized channels on modern cable systems--which may feature as many as 120--and the 4,000 low power television stations[4] the Federal Communications Commission plans to

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3. 1986 list price for the new A.T.& T. FCS 350, which includes a microcomputer for frame storage and transmission, and a video camera for image input.

4. Low power television stations broadcast over a small (10-15 mile) radius, on VHF or UHF frequencies. Largely free of costly F.C.C regulation, they are predicted to multiply viewer choice (Couzens, 1984).

license over the next several years (Singleton, 1983), rent for channel space should be modest. Additionally, now that video cassette recorders are diffusing as fast as color television sets (Mayer and Sweeting, 1985), the teletext cycle could be broadcast over any channel during pre-dawn hours, recorded by the VCR, and played back at the consumer's convenience (Stein, 1982).

Teletext consumers would, however, have to purchase a decoder to translate the digital signal into text, graphics, and perhaps sound. Decoders currently cost $300 and up (Arlen, 1984). Most teletext systems have no subscription fees. Nor do they require two-way cable or phone connections.

Two other advantages of teletext merit mention. Teletext production costs are independent of the number of users. Videotext, however, requires more central computer capacity as the number of subscribers grows (Veith, 1983). And as with any shared computer, simultaneous users can overload the videotext system causing it to slow down or refuse new access. Teletext, since it is a broadcast, can handle any number of viewers.

Proposition 2: By the mid-1990s, teletext will offer advertisers a print-like medium at a cost per thousand viewers far below that of newspapers.

Newspapers have secured a stable niche in the advertising environment largely due to the characteristics of print on paper. For a retailer, a newspaper ad has advantages electronic media have, until now, not been able to match: text and graphics format permitting

detailed product and price information, semi-permanent display, user control (ease of browsing), and zoned penetration.

While not as tangible as newsprint, nor as portable, nor yet as easy to read, teletext is the first electronic advertising medium to match print in these categories. Teletext can carry photos, and as many pages of information specifying the product as the retailer wishes to provide. The viewer can access any page for as long as he or she wishes, or come back to it as long as the ad runs. And both viewer and retailer can zone ads for convenience and economy, respectively.

Teletext also has one feature print advertising only provides in its classified sections--organization by product to permit comparison shopping. Although comparison would be facilitated, it would be in the best interest of the agency coordinating teletext advertising to limit display to the small subset of items each retailer now offers in sales through traditional media. A complete comparative listing would likely drive away stores with higher markups, as well as defeat the purpose of advertising--to attract customers into the store where they may also purchase regularly priced merchadise.

To retailers, the benefits of separating advertising from newspapers are largely economic. Savings could be realized in three major areas:

1. Bypassing editorial expenses--reporting and editing the news.
2. Eliminating many production costs, eg. printing, paper, etc.
3. Eliminating most distribution costs.

The cost of creating the ad's content whether in a sketch, photograph, or with live models would be the same whether the ad was prepared for paper or screen. Now that electronic preparation of ad copy is becoming a preliminary step in print-on-paper production (Smith, 1980; Marvin, 1980), translation to the screen is an increasingly

inexpensive step. The last advertising cost, paying a sales force to handle accounts, also would be proportionately similar to newspapers'.

Editorial costs for a modern newspaper average about 10 percent of gross revenues. While a small percent, given the scale of newspaper economics, newsgathering costs a lot of dollars. A typical metropolitan daily with 200,000 subscribers grossed abut $100 million in 1978. Editorial expenses were about $9 million (Compaine, 1980). Partly due to that editorial overhead, the bulk of which advertisers must pay, newspapers are the most expensive major advertising medium (in cost per thousand readers) with ad rates that rose faster during hte 1970s than any other mass medium (Compaine, 1980). There are, of course, no editorial costs for an all-advertising teletext channel.

While editorial costs are added most heavily to run-of-the-press advertising placed between news columns, all paper-based ads--preprinted ads delivered by the newspaper (and direct mail)--require substantial expense for presses, skilled labor, shipping, paper and ink. At the metropolitan paper described by Compaine, the cost of newsprint and ink alone came to $29 million in 1978. Running the presses cost an additional $10 million. When that $39 million is discounted for the proportion of the newspaper that is news (based on figures in Bogart, 1985), just paper and ink for ads still amounts to almost $22 million.

Teletext production, on the other hand, requires one or more frame generators, to create the advertising "pages.". Like print, teletext would also require employees skilled in computer graphics composition. Unlike print, teletext would require no printers. And unlike presses and other mechanical machinery that are rising in price, frame generators

and other chip-mediated electronic machinery are becoming cheaper. Teletext, therefore, enjoys an enormous and growing cost advantage in producing ads.

The third and final economic advantage is distribution. Delivering individual bundles of paper to tens or hundreds of thousands of doorsteps throughout an area of serveral thousand square miles is inherently an expensive process due to labor, trucking and fuel costs. The mid-sized metropolitan newspaper of our example spent $10 million on distribution in 1979. The increasing organization of newspaper carriers and distributors has increased labor costs since then (Caesar, 1985). And newspaper penetration is continuing to decline (Bogart, 1985) meaning greater travel for the same number of deliveries. Even with declining fuel prices, circulation is expected to claim an increasing share of newspaper revenues.

In contrast, electronic distribution of teletext advertising requires rental of one-way transmission facilities such as a low-power television channel, or a cable channel, or an early morning hour on a VHS station for consumers with video cassette recorders (VCRs), and some electricity. The new low-power television stations as well as many cable systems currently have excess capacity they are eager to sell at low rates (Izzillo and Wolf, 1985).

By 1995 most Americans may be able to receive full-channel teletext over one or more media. Cable is already installed in nearly 46 percent of U.S. television homes and is expected to connect 62 percent by 1990 (Izzillo and Wolf, 1985). At the end of 1985, 30 percent of U.S. television households owned a VCR. Conservatively estimated, 55 percent of all U.S. homes will have a recorder in 1990 (Mayer and Sweeting, 1985).

When editorial, production, and distribution costs are summed, the economic advantage of teletext over newspapers is striking. For example, a single full page black and white newspaper ad run in the 13 daily newspapers ringing San Francisco Bay cost a national retailer $68,000.[5] That amounts to almost four times the cost of the principal piece of teletext production equipment, the frame generator, or a fifth of the total cost of setting up a low power televison station (Couzens, 1984). There are no full channel teletext advertising agencies yet to compare personnel costs with, but the newspaper ad above would pay one day's salary for more than 800 employees earning $30,000 per annum in wages and benefits.

Newspapers charge a third or less of their normal rate to deliver advertising printed elsewhere and shipped to the newspaper for distribution. But even here, teletext has a substantial advantage. Because pre-prints are often in full color, they require heavier paper and more expensive printing. Eighty-nine percent of a national retailer's total cost for an ad inserted in the Sunday paper is bound up in printing, paper, shipping, and distribution charges[6], none of which are necessary in teletext.

No matter how much cheaper it is to replace mechanical production and distribution with electronic means, if teletext fails to gain a mass audience it will never challenge the newspaper. The most forbidding disadvantage of teletext is the cost to consumers of the decoder.

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5. This figure was supplied by the California senior vice president for sales promotion in an interview on 10/18/85. For competitive reasons, he asked that his firm not be named.

6. These figures were provided by the same informant.

Here falling prices for computer-mediated devices probably need an assist in the form of a manufacturing subsidy from retailers eager for cheaper advertising, and perhaps telephone companies producing electronic yellow pages, for decoder prices to fall from $300 plus to $20 and $40 per unit over the next 10 years. There is precedent for such subsidization. A.T.& T.[7] cut the price of its Sceptre videotext terminal by a third for subscribers to Knight-Ridder's Viewtron system in South Florida (Fortune,11/14/83). And Knight-Ridder was subsidizing up to half the store price of low capacity modems and communications software for its national Viewtron venture.

Proposition 3: Retailers are learning that many kinds of advertising material need not be packaged between news columns to be read by consumers.

There is no doubt that news and information attracts the reader's attention to embedded advertising. But the conception that retailers must rely on editorial content as "bait" has become outdated for certain kinds of ads as the U.S. has become a consumer economy. The central assumption underlying the traditional advertising strategy is that while readers may actively scan news and other editorial information, they are passive observers of commercial information and must be lured into advertisements. But there is now increasing evidence that many, if not most, consumers look at advertising itself as valued information in a newspaper. For example, a 1974 study funded by the Newspaper Advertising Bureau reported that 75 percent of women respondents were as interested in ads as in news (Compaine, 1980). Videotext pilots have consistently

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7. Note that A.T.& T.'s court-ordered prohibition from originating media content expires at the end of the present decade (Pool, 1982).

found that users valued product information, particularly frames describing sales, more highly than any other category of information save news (Weissman, 1983).

The most persuasive indication that retailers are beginning to change their conception of consumer media behaviors lies in the spectacular rise of pre-printed advertising that is inserted in the newspaper for delivery, and in direct marketing which bypasses newspapers, usually through postal delivery.

Editors are already alarmed at erosion of run-of-the-press advertising--which is more profitable--in favor of direct mail and preprint advertising (Editor & Publisher, 6/18/83; Bogart, 1985; Standen, 1985). Jerome S. Tilis, senior vice president of Knight-Ridder's Philadelphia newspapers told the American Newspaper Publishers Assn. convention in 1983 that preprint volume was the fastest growing segment of the newspaper business, soaring 365 percent between 1971 and 1981 (Editor & Publisher, 4/30/1983). A more recent analysis by the Newspaper Advertising Bureau found preprints displacing ads embedded in the newspaper. In the five years between 1977 and 1983, the proportion of the weekday newspaper claimed by display advertising declined 37 percent, while inserted advertising grew 111 percent (Bogart, 1985).

Although little research about the effectiveness of advertising independent of news has been published, one study, conducted by the advertising agency Dancer Fitzgerald Sample, concluded that both direct mail and free-standing inserts had greater sales impact than embedded, or run-of-the-press, ads (Compaine, 1980). And a Louisville Courier-Journal survey found 39 percent of respondents said they read the inserts before reading the newspaper (Editor and Publisher, 5/4/85).

While the explosion of stand-alone print advertising demonstrates retailers' conviction that news is no longer critical for consumer exposure to a message, it doesn't guarantee that print-like ads will be as well received. Inserts and mailed ads are delivered to the house. They demand attention, if only to carry them to the wastebasket. Teletext advertising, on the other hand, does not have its foot in the door. It must be invited in. This characteristic of electronic text systems is likely to limit the kinds of commercial messages for which it is suited. The flip side, however, is that those advertisements selected by the consumer are likely to receive a higher level of attention than unsolicited ads spilling from the newspaper or the mail slot.

Teletext would likely be an ideal vehicle for encouraging purchase of already desired durable goods, sold under trusted brand names. The new medium is also a natural for frequently updated ads in list form, such as classifieds (Kinsolving, 1985; Pool, 1982). With its capacity for additional pages of information on demand, teletext could carry consumer evaluations and the kind of product details normally only available by visiting the store and possessing the uncommon luck of finding a knowledgeable sales person.

Teletext would be an inefficient choice for most non-durable goods. It wouldn't make sense to spend time comparing prices on minor purchases. The new medium would also be ill-suited for introducing new products, changing behaviors--such as switching brands, wearing seat belts, or quitting smoking--or for creating favorable images for corporations, politicians or other entities. Teletext, most likely, will fit into a comprehensive marketing strategy utilizing a variety of media. It's most direct challenge, however, is to the printed page it mimics in so many important ways.

Proposition 4: The abundant media environment of the next decade will accelerate dissolution of the marriage of interests between readers and advertisers that is the economic foundation of U.S. newspapers.

In coping with technological flux, Rosenbloom (1984) offers the media homely, but useful advice: Before anything else, a business must maintain a customer-orientation. He offers, by example, the story of a steam locomotive manufacturer who kept perfecting steam engines after diesels proved more efficient. The man failed to realize he was in the railroad business, and soon went bankrupt. The emphasis, Rosenbloom argues, should be on value to the customer, rather than on the machinery used to convey value.

Rosenbloom's advice is problematic for newspapers because they serve two customers--readers and advertisers--with very different objectives. Readers come to the newspaper for news and information, only some of which is commercial. But advertisers have no economic reason to care about the quality of news. They seek maximum sales-producing exposure at the most competitive price. What has held this marriage of convenience together is the lack of alternatives that might serve one or both parties better. The foreseeable future is not so much a break with the past, as an acceleration of trends already well documented. The newspaper "marriage" of readers and advertisers has been showing signs of stress for some time. Both readers and advertisers have been dallying elsewhere; new generations forsaking the newspaper subscriptions of their parents for televised news, and advertisers pulling ads from papers for, first, radio and later, television. Daily newspaper penetration has dropped from 1.24 papers purchased per household in 1950 when television began to diffuse, to .84 in 1977 (Compaine, 1980). The newspaper's share of total U.S. advertising has been trimmed by

competing media from 45 percent in 1935 to 27 percent in 1984 (Presstime, June 1985). Only mergers, and in several cases the failures of competing dailies, have kept the industry's earnings strong (Compaine, 1985).

In a slow evolution, newspaper marketers have been shifting the burden of paying for the paper from the reader to the advertiser (Udell, 1978). Advertisers now contribute 70-90 percent of of total newspaper revenues, and subscribers between 10 and 30 percent (Compaine, 1980). As a result, advertisers have become far more vital newspaper customers than readers. In fact, subscribers--whose payments don't cover the cost of raw paper--have increasingly become a millstone for newspapers losing advertising. The Washington Star and The Philadelphia Bulletin, for example, both were pulled down by the combination of large circulations and declining ad revenues. The new media environment of the '90s with its threat to the newspaper's advertisers, but not to its readers, creates a dilemma for the newspaper industry.[8]

Proposition 5: Faced with a loss of advertising revenues, newspapers will be tempted to reduce the quality of journalism or maintain service only for that portion of their current circulation that can afford and is willing to pay substantially higher rates.

Newspapers can be expected to respond creatively to this dilemma. New ideas, such as marriage mail that guarantee saturation of an area with ads sold through the paper, are already being tried. But the combination of the sharp difference in cost between print and print-like

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8. The Swedish Commission on New Information Technology saw this as early as 1981: "The press is not threatened by the new media as regards the editorial contents of newspapers. [But] advertising in videotex should be prohibited, in the view of the majority of members of the Commission, as it might entail so great a loss of advertising revenue as to threaten the economy of the press" (reported in Weaver, 1983).

electronic advertising, and the advantage of increased consumer control over ad access with teletext suggest the dilemma will not be easily evaded.

If newspapers give priority to the interests of their most important customers, advertisers, they must cut expenses and/or profits to remain competitive. On the other hand, if newspapers choose their original customers, readers, they must raise subscription fees substantially to cover ad losses. Either route--emphasizing the interests of subscribers or advertisers--creates problems. Let's begin with the strategy to keep editorial quality high. Any rise in subscription fees is likely to be disproportionate to the loss in advertising receipts, reflecting the disproportion of support from the two sources. As a simplified example, if a paper receiving 75 percent of its revenue from advertising and 25 percent from subscriptions loses 10 percent of its ad billings, it must raise subscription rates 30 percent to compensate, all else equal.

If newspapers substantially raise subscription fees, and some readers cancel rather than pay, the paper may begin a downward spiral described by Rosse (1978). In such a spiral, loss of readers from a subscription price hike leads to lower ad revenues since the ads are reaching fewer consumers. In turn the lower ad billings lead to even higher subscription rates and so on. In a case where other factors are held constant, Rosse calculates that the downward spiral resulting from just a 10 percent increase in subscription prices would result in a 26 percent decline in circulation and a resultant 41 percent drop in advertising. In life, of course, a newspaper could be expected to make dramatic changes to limit such a reciprocal decline, but Rosse's model indicates the danger of sharply raising subscription charges.

In an age where information is increasingly valuable because of the pace of change and interconnectedness of the modern economy, it's likely that a core of subscribers might be willing to pay substantially more than they do now for a newsaper that provided them information unavailable for less elsewhere. But were the readership of U.S. newspapers reduced to this core, the era of broad circulation newspapers--ushered in with the Penny Press in the mid-1800s and gradually diminished in the few decades as newspapers shifted coverage to suit advertisers' pursuit of upscale readers--might be hastened to an end.

In the second case, where newspapers choose to become as competitive as possible with new advertising media, newspapers will be tempted to produce news as inexpensively as possible.

Inexpensive journalism is a reliance on cheap sources of material to fill the news space, or newshole. Newsgathering at a typical newspaper can be placed on a cost continuum. The metric is cost per column inch of finished copy. At the most expensive end of the spectrum are international coverage provided by a paper's foreign correspondents, and investigative reporting. These kinds of coverage require able journalists, who are better compensated than the average. Foreign bureaus require quarters and equipment as well as unusually high travel expenses since their reporters usually cover a large area. Investigative reporting normally takes weeks or months of digging through records, persuading key sources to provide information, and chasing down errant leads to produce as little as 100 column inches. Additionally, investigative stories require review by expensive attorneys aand there is the possibility of a libel suit entailing thousands of dollars in legal fees even if the paper wins.

Also expensive are well-staffed bureaus that provide agressive zoned coverage of each government within a paper's circulation spread. Less expensive, but still costly are specialized reporters who may have advanced degrees in science, medicine, law or business enabling them to provide an insider's view of contemporary affairs. Also more costly than average are project reports, where one or more reporters are freed for an extended time to develop in-depth reports on issues of interest to the readership. Most of the copy in a newspaper is toward the middle of the cost continuum. It consists of reports of events occuring in the central city of a metropolis on a regular basis such as school board meetings, city council deliberations, business developments, weather stories, fires, and accidents.

The least expensive locally-generated journalism is the publication of lists and stenographic coverage of civic affairs and community promotions. Such tasks require little experience, agressiveness or insight on the part of reporters, and in fact are often performed by editorial aides and stringers who are paid minimal wages. At the low end of the contiuum, are stories delivered by wire services such as the Associated Press.

The argument is that newspapers facing revenue stagnation or losses will be tempted to reduce their complement of reporters and shift the bull of their coverage toward the lower end of the cost continuum. Because publishers frequently boast of their committment to editorial quality,[9] elaboration of this line of reasoning is warranted.

Under financial duress, newspapers have three principle options if they wish to remain in business: cut product costs, cut profit, or

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9. See, for example, the tenor of advertising in trade publications such as Editor & Publisher.

restore revenue. The optimal choice, of course, is the third. But should some advertisers desert print on paper for print on screen, the economies of electronic production and transmission are such that newspapers could stem losses with sharp rate cuts, but not lure back lost accounts.

Some, like the Newspaper Advertising Bureau's Kinsolving (1985) anticipate ad losses to new media, but argue that the advertising pie will double by 1995, making room for everybody. Kinsolving concedes, however, that most of the enlargement he projects will be due to inflation rather than constant dollar growth.[10] Total ad revenues have consistently equalled about 2 percent of the Gross National Product (Compaine, 1980). And Kinsolving offers no reason to expect change. As for more revenue from subscribers to compensate for ad losses, McCombs' and Eyal's "principle of relative constancy" (1980) suggests consumers will not increase their spending for print media faster than the growth of the general economy.

Because newspaper after-tax profits are twice the manufacturing average (Udell, 1978, Compaine, 1980), might newspapers simply accept a smaller margin of gross revenues? This is likely to be the least attractive avenue for the businessmen who own America's newspapers. The industry's high earnings recently have brought premium prices for newspapers from media corporations that have made a science out of managing newspapers for maximum profit. The increasing numbers of publically traded newspaper companies has also added the pressure of the stock market for successively rising profits on editorial decision-making (Bagdikian, 1983). Were newspapers to become less remunerative there might well be a period of havoc in patterns of

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10. Personal communication, 10/25/85.

ownership and investment.

Can product costs be trimmed without hurting the quality of journalism? Newspapers have invested heavily in recent years in new "front-end" technology and as a consequence have made composing the paper and producing it less labor-intensive and thus less expensive. In assessing the newspaper industry of the 1980's Compaine (1980) writes that newspapers have already realized the bulk of these technologically-based savings.

Another source of cost reduction that newspapers have depleted is consolidation. The age of local competition in newspapers has been replaced by an era of monopoly (Bagdikian, 1983). In the 1920's when radio began to cut into newspaper advertising revenues, and later in the '50s when television began to share the advertising pie, newspapers adapted by reducing competition for commercial space on print through mergers and acquisitions (Bagdikian, 1976). The American city in which two or more newspapers actually competed declined sharply. Now there are fewer than 30 cities in which newspapers owned by different publishers compete and even competing dailies owned by the same management are being replaced by "all-day" newspapers with joined staffs. Only one avenue of further reduction is open, cutting down to just one edition daily.

Cutting editorial quality is the path of least resistance. Although managers frequently claim that higher editorial quality pays off in greater circulation, the relationship is infrequently demonstrated empirically. Using an econometric model, Rosse (1970) found that other things being equal, the editorial quality of newspapers had a negligible effect on circulation (a demand elasticity of .001). Rosse's calculation was based on a typical Mid-American newspaper published evenings for

50,000 subscribers in the early 1960s, so its generalizeability may be questioned. But in the absence of contradictory empirical studies, the model suggests that cheapening editorial quality would not substantially diminish circulation.

There are other reasons to believe lowered editorial quality would be a safe path of retreat. First, costs of entry for a competing publication are too great a barrier to break the local paper's monopoly. Second, local television newscasts are rarely strong or deep enough to encourage readers to cancel the newspaper (Powers, 1977; Schudson, 1983). Third, give-away and some suburban newspapers are already producing inexpensive journalism and thriving. So there likely exists a margin for mediocrity in a monopoly paper before signigicant numbers of readers cancel their subscriptions.

What Might This Mean to Society?

American newspapers have a unique position among the world's media. Their freedom from government interference is guaranteed in the nation's statement of its guiding principles, the Constitution. Additionally, the media are beneficiaries of government subsidies in lowered postal rates, exemptions from child labor laws for news carriers, and exemptions from anti-monopoly legislation provided by the Newspaper Preservation Act of 1970. This favored status is based on a conception of newspapers as a "fourth estate" of government that provides the marketplace of ideas the citizens of a democracy depend on to make rational voting decisions and to petition their representatives in Congress. Additionally, the newspaper is seen as a valuable check on government, a "watchdog" that

exposes corruption before it can grow pervasive enough to endanger the system.

This classical rationale, which newspaper publishers drape about themselves as politicians do the flag, has come under attack from both the left and right wings of modern political science (Schudson, 1983). Neither pole has eclipsed the classical view, even if they have exposed it as an ideal seldom achieved. Schudson argues that even if the portrayal of newspapers as guardians of democracy romantically supposes that most citizens are active political information-seekers and decision-makers with real influence over affairs of state, there is some diffusion of political power in America and journalism is important even if it only gives the power of information to a polygarchic elite.

From this point of view, if newspapers maintained editorial quality but circulation shrank to the elite, society would suffer little. From a second vantage point, however, either the demise of newspapers as a vehicle spanning social strata, or the dilution of journalistic quality have the potential for great harm to society. Bagdikian (1983) champions this position: "Democracies are presumed to be strong because they are capable of making necessary changes without violence or lasting injustice. The root process of peaceful and appropriate change begins with the right of the aggrieved to be heard, thus presenting the best evidence of the need for change. And the voice of the aggrieved, being heard by the general citizenry, can create consensus for a remedy. The media are crucial to this process. If the media do not report malfunctions of the system, the unheard crises never become a social fact. Or if the public, sensing the need for change, has opinions that go unreported, no mechanism exists for consensus to evolve. In those

instances, public opinion remains powerless. Unheard cries turn to agression. Common feelings become detached from institutions. The result is apathy or violence, both of which are subversive to democracy."

The kind of news that exposes the malfunctions of society and expresses the cries of the aggrieved is for the most part expensive journalism. It is the kind of journalism that at the local level only the newspaper has provided consistently. Any threat to it is cause for worry.

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